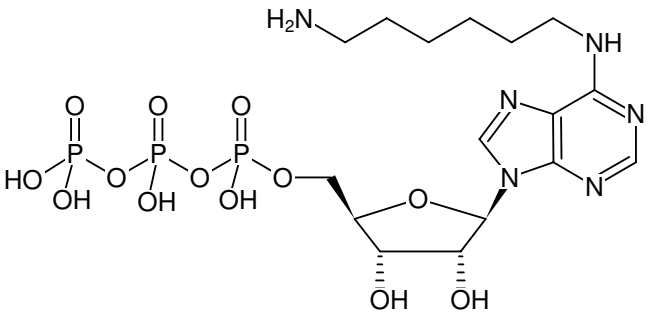
DATA SHEET

Jena Bioscience

N^6-(6-Aminohexyl)-ATP

N^6-(6-Aminohexyl)-adenosine-5'-triphosphate, Sodium salt

Cat. No.	Amount
NU-805S	50 µl (10 mM)
NU-805L	5 x 50 µl (10 mM)



Structural formula of N^6-(6-Aminohexyl)-ATP

For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months after date of delivery

Molecular Formula: $C_{16}H_{29}N_6O_{13}P_3$ (free acid)

Molecular Weight: 606.36 g/mol (free acid)

Exact Mass: 606.10 g/mol (free acid)

CAS#: 53602-93-0

Purity: ≥ 95 % (HPLC)

Form: solution in water

Color: colorless to slightly yellow

Concentration: 10 mM - 11 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{max} 266 nm, ε 16.2 L $mmol^{-1}$ cm^{-1} (Tris-HCl pH 7.5)

Applications:
Agonistic ligand, mainly for nucleoside receptor A_1
Nucleoside-triphosphates can be converted by different membrane-bound phosphatases into nucleosides acting as nucleoside receptor ligands. In some cases nucleoside phosphates act also directly on nucleoside receptors.

Specific Ligands:

Myosin V[1]

Selected References:

[1] Komori *et al.* (2008) Measurement system for simultaneous observation of myosin V chemical and mechanical events. *BioSystems* **93**:48.

[2] Williamson *et al.* (2009) Novel adenosine derived inhibitors of 70 kDa Heat Shock Protein, discovered through structure based design. *J. Med. Chem.* **52**:1510.

[3] Teramoto *et al.* (2000) In vitro selection of a ligase ribozyme carrying alkylamino groups in the side chains. *Bioconjugate Chem.* **11**:744.

[4] Folsom *et al.* (1989) Detection of DNA targets with biotinylated and fluoresceinated RNA probes. Effect of the extent of derivatization on detection sensitivy. *Analytic. Biochem.* **182**:309.

Sirci *et al.* (2012) Ligand-, structure- and pharmacophore-based molecular fingerprints: a case study on adenosine A1, A2A, A2B, and A3 receptor antagonists. *J. Comput. Aided Mol. Des.* **26**:1247.

Volonte *et al.* (2009) Membrane components and purinergic signalling: the purinome, a complex interplay among ligands, degrading enzymes, receptors and transporters. *FEBS J.* **276**:318.

Yegutkin (2008) Nucleotide and nucleoside converting enzymes: Important modulators of purinergic signalling cascade. *Biochim. Biophys. Acta* **1783**:673.

Joshi *et al.* (2005) Purine derivatives as ligands for A3 adenosine receptors. *Current Topics in Medicinal Chemistry* **5**:1275.

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Jacobson (2001) Probing adenosine and P2 receptors: design of novel purines and nonpurines as selective ligands. *Drug Development Res.* **52**:178.

Jacobson *et al.* (2001) Ribose modified nucleosides and nucleotides as ligands for purine receptors. *Nucleosides, Nucleotides & Nucleic Acids* **20 (4)**:333.

Ito *et al.* (1998) Modified nucleic acid for systematic evolution of RNA ligands by exponential enrichment. *J. Bioact. Compat. Pol.* **13 (2)**:114.

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Trayer *et al.* (1974) Preparation of adenosine nucleotide derivatives suitable for affinity chromatography. *Biochem. J.* **139 (3)**:609.